

UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF WASHINGTON
AT SEATTLE

CITY OF SEATTLE,

Plaintiff,

v.

MONSANTO COMPANY, *et al.*,

Defendants.

Case No. C16-107-RAJ-MLP

ORDER

I. INTRODUCTION

This matter is before the Court on: (1) Plaintiff City of Seattle’s (“City”) “Motion to Exclude Proposed Expert Testimony by Harri Kytomaa” (Pl.’s Mot. (dkt. # 597)); (2) Defendants Monsanto Company, Solutia Inc., and Pharmacia LLC’s (“Defendants” or “Monsanto”) “*Daubert* Motion to Exclude the Expert Testimony of Gerald Markowitz” (Defs.’ Markowitz Mot. (dkt. # 638)); and (3) Defendants’ “*Daubert* Motion to Exclude the Expert Testimony of James S. Cooper” (Defs.’ Cooper Mot. (dkt. # 624)). Under Federal Rule of Evidence 702, the City seeks to exclude the direct and rebuttal expert testimony of Defendants’ expert Dr. Harri Kytomaa, and Defendants seek to exclude the direct expert testimony of the City’s expert Dr. Gerald Markowitz and the expert testimony of the City’s rebuttal expert James S. Cooper. The parties have filed responses (Defs.’ Resp. (dkt. # 682); Pl.’s Markowitz Resp. (dkt. # 670); Pl.’s

1 Cooper Resp. (dkt. # 668)) and replies (Pl.’s Reply (dkt. # 708); Defs.’ Markowitz Reply (dkt. #
2 717); Defs.’ Cooper Reply (dkt. # 712)) on the respective motions. The Court heard oral
3 argument from the parties on June 9, 2023. (Oral Argument (dkt. # 741.)

4 Having considered the parties’ submissions, oral argument, the balance of the record, and
5 the governing law: (1) the City’s Motion (dkt. # 597) is GRANTED in part and DENIED in part;
6 (2) Defendants’ Markowitz Motion (dkt. # 638) is GRANTED in part and DENIED in part, and
7 (3) Defendants’ Cooper Motion (dkt. # 624) is DENIED, as further explained below.

8 II. BACKGROUND

9 This case arises due to Defendants’ manufacture and sale of polychlorinated biphenyls
10 (“PCBs”). Through this lawsuit, the City seeks to hold Defendants liable for PCBs that have
11 escaped from their use in industrial and commercial applications into the Lower Duwamish
12 Waterway (“LDW”) and the City’s stormwater and drainage systems. (*See* Second Am. Compl.
13 (dkt. # 267) at ¶¶ 5-15.)

14 The City’s sole remaining cause of action alleges Defendants intentionally manufactured,
15 distributed, marketed, and promoted PCBs in a manner that created a public nuisance harmful to
16 the health and free use of the LDW and the City’s stormwater and drainage systems. (Second
17 Am. Compl. at ¶¶ 91-108.) Relevant to the instant motions, Defendant Pharmacia LLC (a/k/a
18 “Old Monsanto”) was the sole producer of PCBs in the United States from the 1930s until they
19 were banned by Congress in 1977. (*Id.* at ¶ 38.) The City alleges that Old Monsanto knew its
20 PCBs would get into the environment and waterbodies, such as the LDW, through their ordinary
21 use, and that Old Monsanto’s knowledge was based in part on its sales of PCBs to businesses
22 near the LDW and its own use of PCBs at its vanillin plant that operated for two decades
23 adjacent to the LDW. (*Id.* at ¶¶ 61-79.)

1 Based on these allegations, the following experts have been set forth by the parties to
2 testify as to various historical aspects of the use of PCBs and their related impacts:

3 **A. Dr. Kytomaa**

4 Dr. Kytomaa was retained by Defendants to address issues related to the use of PCBs in
5 fire safety applications. (Woerner Decl., Ex. A (dkt. # 598-1) at 1.) He is a professional engineer
6 and fire safety expert, a former professor of mechanical engineering at the Massachusetts
7 Institute of Technology, and a “Certified Fire and Explosion Investigator (CFEI) in accordance
8 with the National Association of Fire Investigators (NAFI) National Certification Board.” (*Id.*)
9 Dr. Kytomaa currently serves as a Group Vice President at Exponent Inc., a scientific and
10 engineering consulting firm. (*Id.*)

11 Based on his education, background, training, and experience, Dr. Kytomaa’s report
12 provided the following summary of his opinions:

- 13 1. 85% of Monsanto’s PCBs were used as a safety fluid to prevent fires in
14 multiple applications. These applications include electrical equipment,
hydraulic systems, heat transfer systems, and compressor lubrication.
- 15 2. PCBs saved lives.
- 16 3. The use of PCBs was required by codes, electrical equipment
17 manufacturers, utilities, architects, engineers, and insurance companies.
- 18 4. Codes adopted by the City of Seattle required the use of PCBs.
- 19 5. In 1972, the United States Government insisted that Monsanto continue to
manufacture PCBs as a fire safety fluid.
- 20 6. PCB alternatives were permitted only after revolutionary changes in fire
21 suppression and detection systems.
- 22 7. To this day, no non-flammable substitute for PCBs has ever been
developed.
- 23 8. PCBs are still legally in use today.

1 (Woerner Decl., Ex. A at 3-4.)

2 Relevant to the City's Motion, a portion of Dr. Kytomaa's report also provides a
3 summation of several historical documents regarding the "Uses of PCBs in the Seattle Area."
4 (Woerner Decl., Ex. A at 110-150.) In his supplemental report, Dr. Kytomaa additionally
5 includes a "Rebuttal of Dr. Markowitz and Dr. Rosner's Report," that provides a summation of
6 deposition testimony and historical exhibits to rebut Dr. Markowitz and Dr. Rosner's opined
7 estimate of Pydraul fluids that Old Monsanto released into the LDW before a spill control system
8 was installed at its vanillin plant.¹ (*See* Woerner Decl., Ex. C (dkt. # 298-3) at 8-11.)

9 **B. Dr. Markowitz**

10 Dr. Markowitz was retained by the City to conduct a historical review of Old Monsanto's
11 use and manufacture of PCBs and their effect on public health.² (DeBord Markowitz Decl., Ex.
12 A (dkt. # 639-1) at 1.) He is a history professor at John Jay College and the City University of
13 New York, has served as an adjunct professor at Columbia University's Mailman School of
14 Public Health, and was previously elected to the National Academy of Medicine as a historian in
15 2017. (*Id.*) He received his doctorate from the Department of History of the University of
16 Wisconsin. (*Id.*) In addition, he has co-authored and edited several books and articles relating to
17 the historical effects of environmental issues affecting public health, including reviews on the
18 history of Old Monsanto and PCBs. (*Id.* at 1-2.)

21 ¹ Pydraul was the trade name of Monsanto's hydraulic fluid. (Defs.' Markowitz Reply at 4 n.1.) Per
22 Defendants, in 1971, Monsanto removed PCBs from its hydraulic fluid but retained the Pydraul trade
name. (*Id.*)

23 ² Dr. Markowitz's report was co-authored with David Rosner, a professor of history at Columbia
University. (*See* DeBord Markowitz Decl., Ex. A at 1-2.) The City informed Defendants that it only
intends to call Dr. Markowitz at trial; therefore, Defendants' Motion does not request the exclusion of Dr.
Rosner. (*See* Defs.' Markowitz Mot.)

1 Dr. Markowitz was consulted to provide opinions as to: (1) what Old Monsanto knew,
2 and what was knowable, about the dangers of PCBs to the environment and humans; (2) how
3 Old Monsanto promoted the use of PCBs and what information/warnings it provided to users; (3)
4 what efforts Old Monsanto made to test the safety of PCBs; and (4) what Old Monsanto did
5 about the impact of its PCBs on the environment and humans. (DeBord Markowitz Decl., Ex. A
6 at 1.) His opinions are based on a historical review of documents from Defendants' archive,
7 testimony of Defendants' corporate representatives across decades of litigation, and other
8 historical materials relating to PCBs. (*Id.* at 1, 3.)

9 As to specifically identified opinions at issue in this matter, Dr. Markowitz opined: (1) it
10 was industry standard to perform long-term chronic animal cancer testing for all chemicals in the
11 1930s-1960s; (2) prior to 1969, certain short-term and medium-term animal studies conducted by
12 Old Monsanto put it on notice that long-term chronic testing was necessary; and (3) prior to
13 1969, Old Monsanto did not conduct sufficient long-term chronic testing on PCBs. (*See* DeBord
14 Markowitz Decl., Ex. A at 12-15.) Dr. Markowitz further opined that Monsanto's warnings and
15 waste disposal advice were inadequate and incomplete, and that Old Monsanto improperly
16 advised customers to landfill PCBs after 1970 and failed to provide customers with access to
17 Monsanto's PCB incinerator as of 1977. (*Id.* at 6-8, 17-22.)

18 In addition, Dr. Markowitz states in his report that, "Monsanto commended employee
19 Paul Wright—and gave him a cash award—for his 'prominent role in forestalling EPA's
20 promulgation of unrealistic regulations to limit discharges of [PCBs]." (DeBord Markowitz
21 Decl., Ex. A at 24.) Dr. Markowitz also opines in his supplemental report that, with regard to a
22 Monsanto vanillin manufacturing plant in the Seattle area in the 1950s-1970s, that "[b]efore a
23 spill control system was installed in 1978 it was estimated that Pydraul fluids were discharged at

1 the rate of 200 gallons a month for potentially well over a decade.” (DeBord Markowitz Decl.,
2 Ex. B (dkt. # 639-2) at 42.)

3 **C. James S. Cooper**

4 Mr. Cooper was retained by the City as a rebuttal expert to review and rebut Dr.
5 Kytomaa’s opinions. (DeBord Cooper Decl., Ex. A (dkt. # 625-1) at 2.) Mr. Cooper previously
6 designed electrical substations and transmission-line systems for the Tennessee Valley Authority
7 (“TVA”) Power System Operations division from 1966-1977 and held positions on TVA’s Fossil
8 and Hydro Electric Environmental Affairs staff until his retirement in 2000. (*Id.*) He also served
9 as TVA’s representative on the PCB committee of the Utility Solid Waste Action Group. (*Id.* at
10 2.) Since 2000, he has worked as an environmental consultant for Regulatory Compliance
11 Services, Inc. and DASCO Services, Inc. (*Id.*) He is a Certified Hazardous Material Manager and
12 has training specified by 29 C.F.R. 1910.120(q) as a Hazardous Materials Technician, Hazardous
13 Materials Specialist, and On-Scene Incident Commander. (*Id.*)

14 While Mr. Cooper worked at TVA, TVA owned and operated approximately “2000
15 PCB-filled transformers, PCB electromagnets, PCB capacitors, PCB-oil-filled and PCB-
16 oil-impregnated cables, PCB-contaminated control systems and other ancillary facilities
17 contaminated with PCBs.” (DeBord Cooper Decl., Ex. A at 3.) As part of his work at TVA from
18 1986-2000, Mr. Cooper conducted onsite evaluations and developed remediation plans for
19 PCB-contaminated sites. (*Id.* at 2.) Mr. Cooper has conducted over 500 site evaluations for
20 owners and operators of PCB equipment, and has worked as a site remediation manager for the
21 cleanup of over 100 sites contaminated by PCBs. (*Id.*)

22 Mr. Cooper’s rebuttal report opines that Dr. Kytomaa’s views on the necessity and
23 appropriateness of PCBs ignore the drawbacks of PCBs and the cost of owning and operating

1 PCB equipment. (DeBord Cooper Decl., Ex. A at 3.) Based on his experience working for TVA
2 and having to find alternatives after PCBs were banned in 1979, Mr. Cooper opines that several
3 practical alternatives to PCB-containing electrical equipment existed, including alternative
4 dielectric fluids, dry-type transformers, and vaulting options for oil-filled transformers, which he
5 opines were all suitable alternatives to PCB dielectric fluid in electrical power equipment. (*Id.* at
6 5-7.)

7 Based on his experience, Mr. Cooper ultimately opines that the electric-utility industry
8 would have preferred PCB alternatives if Monsanto had been forthright about the risks of PCB
9 equipment, which he opines would have allowed a market for PCB alternatives to develop earlier
10 than it did. (DeBord Cooper Decl., Ex. A at 10-11.) As such, Mr. Cooper concludes Dr.
11 Kytomaa's report is unreliable due to his failure to acknowledge Monsanto's unwillingness to
12 address the negative aspects of PCBs despite their awareness in early years of production, the
13 existence of viable PCB alternatives, and because despite Dr. Kytomaa's conclusion to the
14 contrary, PCBs are banned and their continued limited use carries substantial restrictions. (*Id.*)

15 III. DISCUSSION

16 A. Legal Standards

17 Federal Rule of Evidence 702 provides in relevant part:

18 A witness who is qualified as an expert by knowledge, skill, experience, training,
19 or education may testify in the form of an opinion or otherwise if: (a) the expert's
20 scientific, technical, or other specialized knowledge will help the trier of fact to
21 understand the evidence or to determine a fact in issue; (b) the testimony is based
on sufficient facts or data; (c) the testimony is the product of reliable principles and
methods; and (d) the expert has reliably applied the principles and methods to the
facts of the case.

22 Fed. R. Evid. 702. For expert testimony to be admissible under Rule 702, it must satisfy three
23 requirements: (1) the expert witness must be qualified; (2) the testimony must be reliable; and (3)

1 the testimony must be relevant. *See Daubert v. Merrell Dow Pharms., Inc.* (“*Daubert I*”), 509
2 U.S. 579, 589-91 (1993). The proponent of expert testimony has the burden of establishing that
3 the admissibility requirements are met by a preponderance of the evidence. *Id.* at 592 n.10; *see*
4 *also Lust v. Merrell Dow Pharms., Inc.*, 89 F.3d 594, 598 (9th Cir. 1996).

5 Before admitting expert testimony into evidence, the Court acts as a “gatekeeper” in
6 determining its admissibility under Rule 702 by ensuring the testimony is both “relevant” and
7 “reliable.” *United States v. Ruvalcaba-Garcia*, 923 F.3d 1183, 1188 (9th Cir. 2019) (citing
8 *Daubert I*, 509 U.S. at 597). Expert testimony is relevant where “the evidence logically
9 advance[s] a material aspect of the party’s case.” *Estate of Barabin v. AstenJohnson, Inc.*, 740
10 F.3d 457, 463 (9th Cir. 2014) (internal quotations and citation omitted), *overruled on other*
11 *grounds by United States v. Bacon*, 979 F.3d 766 (9th Cir. 2020) (en banc). Testimony is reliable
12 where it has “a reliable basis in the knowledge and experience of the relevant discipline.” *Id.*
13 (quoting *Kumho Tire Co., Ltd. v. Carmichael*, 526 U.S. 137, 149 (1999)).

14 The Supreme Court has noted that the reliability inquiry is a “flexible one,” and while the
15 Supreme Court has suggested several factors helpful in determining reliability, trial courts are
16 generally given “broad latitude in determining the appropriate form of the inquiry.”³ *United*
17 *States v. Wells*, 879 F.3d 900, 934 (9th Cir. 2018) (quoting *Kumho Tire*, 526 U.S. at 150); *see*
18 *also Messick v. Novartis Pharm. Corp.*, 747 F.3d 1193, 1196 (9th Cir. 2014) (finding Rule 702
19 should be applied with a “liberal thrust” favoring admission) (quoting *Daubert I*, 509 U.S. at
20

21
22 ³ In relevant part, *Daubert I* suggested several reliability factors a trial court may examine to determine
23 the reliability of expert testimony, including: (1) whether a theory or technique can be tested; (2) whether
it has been subjected to peer review and publication; (3) the known or potential error rate of the theory or
technique; (4) the existence and maintenance of standards and controls; and (5) whether the theory or
technique enjoys general acceptance within the relevant scientific community. *Daubert I*, 509 U.S. at
592-94; *see also Mukhtar v. California State Univ., Hayward*, 299 F.3d 1053, 1064 (9th Cir. 2002).

588); *United States v. Hankey*, 203 F.3d 1160 (9th Cir. 2000) (Rule 702 is “construed liberally” in considering admissibility of testimony based on specialized knowledge).

Furthermore, the reliability inquiry favors admission of testimony as “[s]haky but admissible evidence is to be attacked by cross examination, contrary evidence, and attention to the burden of proof, not exclusion.” *Primiano v. Cook*, 598 F.3d 558, 564 (9th Cir. 2010) (citing *Daubert I*, 509 U.S. at 596). The reliability inquiry test does not seek to measure “the correctness of the expert’s conclusions but the soundness of [his or her] methodology,” and therefore, when an expert meets the standards established by Rule 702, “the expert may testify[,] and the fact finder decides how much weight to give that testimony.” *Pyramid Techs., Inc. v. Hartford Cas. Ins. Co.*, 752 F.3d 807, 814 (9th Cir. 2014) (quoting *Primiano*, 598 F.3d at 564-65).

B. Dr. Kytomaa

The City primarily argues that Dr. Kytomaa’s opinions are not relevant to the Court’s adjudication of the City’s public nuisance claim or Defendants’ applicable affirmative defenses. (Pl.’s Mot. at 3-5.) The City argues that Dr. Kytomaa’s opinions concerning the import of PCB applications, substitutes, regulations, and/or their use are irrelevant with regard to a public nuisance claim and will only serve to confuse the jury. (*Id.*)

Furthermore, the City argues that Dr. Kytomaa’s recitation of documents in portions of both his initial and supplemental report are inadmissible because he has no specialized expertise in summarizing historical documents.⁴ (Pl.’s Mot. at 5-6.) The City additionally contends that

⁴ The City has also moved to exclude Dr. Kytomaa’s supplemental report in whole as an untimely and improper supplement. (Pl.’s Mot. at 7.) Defendants respond that the City has sought to elevate “form over substance” with such request because, though Dr. Kytomaa labeled his report “supplemental,” the underlying substance is that of a rebuttal report and it was submitted on the deadline for rebuttal reports. (Defs.’ Resp. at 10-11.) As the City did not respond in its reply to this consideration (*see* Pl.’s Reply), and having examined the substance of Dr. Kytomaa’s supplement (Woerner Decl., Ex. C (dkt. # 298-3)), the Court agrees with Defendants’ characterization and declines to strike Dr. Kytomaa’s supplemental report.

1 Opinion 2 is unreliable because Dr. Kytomaa did not apply his qualifications nor investigated the
2 fires that he discusses in his report to reach his conclusion that “PCBs save lives.” (*Id.* at 7-9.)
3 Last, the City maintains that Opinions 3 and 4 are not grounded in sufficient data because though
4 some fire-safety specifications at the time were satisfied with the use of PCB equipment, Dr.
5 Kytomaa’s opinions that the City’s codes “required” the use of PCBs is not connected to his
6 cited information. (*Id.* at 9.)

7 Defendants counter that Dr. Kytomaa’s opinions in this case are relevant and critical to
8 their defense because his opinions “go to the very heart” of the City’s public nuisance claim,
9 Defendants’ affirmative defenses, and the reasonableness of Old Monsanto’s conduct. (Defs.’
10 Resp. at 1.) Specifically, Defendants claim Dr. Kytomaa is distinctively qualified to explain to
11 the jury: (1) why PCBs were advantageous for fire safety; (2) why Old Monsanto’s manufacture
12 and sale of PCBs was authorized and required under certain circumstances by various statutes
13 and codes; (3) why PCBs were specified for industrial equipment and military applications along
14 the LDW; and (4) the primary uses of PCBs among industries along the LDW. (*Id.*)

15 Defendants contend that Dr. Kytomaa’s opinions are relevant because they go to the first
16 element of the City’s claim—whether Old Monsanto’s conduct in manufacturing and selling
17 PCBs can be considered a nuisance under Washington law—and because the City bears the
18 burden of proving the unreasonableness of Old Monsanto’s conduct. (Defs.’ Resp. at 4 (citing
19 RCW 7.48.160), 6-7 (citing Wash. Civil Pattern Jury Instruction 380.03).) Defendants further
20 argue that Dr. Kytomaa’s testimony about the historical documents identified by the City
21 remains admissible because it bears on relevant issues within his expertise in this case. (*Id.* at
22 7-9.)
23

As an initial matter, Defendants failed to respond to the City’s challenges to exclude Opinion 2 as unreliable, and Opinions 3 and 4 as not based on sufficient facts or data.⁵ (*See* Pl.’s Reply at 6.) The proponent of expert testimony bears the burden of proving that it meets the requirements of Rule 702. *Lust*, 89 F.3d at 598. A party that fails to discharge its burden in defending a motion cannot succeed on that motion. *See Ali v. Ashcroft*, 2003 WL 27385848, at *3 (W.D. Wash. July 30, 2003) (citing *Celotex Corp. v. Catrett*, 477 U.S. 317, 323-24 (1986)); *see also Jenkins v. County of Riverside*, 398 F.3d 1093, 1095 n.4 (9th Cir. 2005) (finding plaintiff waived challenge to claims that were not raised in opposition to motion for summary judgment). The Court is unable to locate in Defendants’ Response, and Defendants’ counsel when asked at oral argument failed to point to, any specific argument rebutting the City’s specific contentions as to Opinions 2-4. (*See* Defs.’ Resp.; Oral Argument.) Given that Defendants, as the proponents of Dr. Kytomaa’s expert testimony, bear the burden to its admissibility, and have failed to oppose the City’s challenges to Opinions 2-4, the City’s Motion to exclude those opinions is granted.⁶

⁵ Pursuant to Rule 702(b), the requirement that expert testimony be based on “sufficient facts or data” requires the Court to engage in “an analysis of the sufficiency of underlying facts or data that is quantitative rather than qualitative.” *United States v. W.R. Grace*, 455 F. Supp. 2d 1148, 1152 (D. Mont. 2006); *see also* Advisory Committee Notes to 2000 Amendments to Fed R. Evid. 702. The requirement “is not intended to authorize a trial court to exclude an expert’s testimony on the ground that the court believes one version of the facts and not the other.” *W.R. Grace*, 455 F. Supp. 2d at 1152.

⁶ In any case, Dr. Kytomaa’s Opinion 2 (“PCBs saved lives”) presents “too great of an analytical gap” between the data (the existence of fires in non-PCB electrical equipment) and the opinion proffered that PCBs saved lives in instances where they were present. *See Gen. Elec. Co. v. Joiner*, 522 U.S. 136, 146 (1997); Fed. R. Evid. 702 Advisory Committee’s Note to 2000 Amendments (noting relevant factors include “[w]hether the expert has unjustifiably extrapolated from an accepted premise to an unfounded conclusion”). Opinions 3 (“The use of PCBs was required by codes, electrical equipment manufacturers, utilities, architects, engineers, and insurance companies”) and 4 (“Codes adopted by the City of Seattle required the use of PCBs”) are similarly unreliable based on the evidence cited (that some fire-safety specifications were met by use of PCB equipment) to the opinion proffered and/or are improper legal conclusions. *See id.*; *Crow Tribe of Indians v. Racicot*, 87 F.3d 1039, 1045 (9th Cir. 1996) (“Expert testimony is not proper for issues of law.”).

1 Next, in consideration of the City’s relevancy challenge, the Court finds that Dr.
2 Kytomaa’s opinions are plainly relevant to the City’s public nuisance claim. As noted above,
3 expert testimony is relevant if it “logically advance[s] a material aspect of the party’s case.”
4 *Estate of Barabin*, 740 F.3d at 463; *see also Daubert v. Merrell Dow Pharms., Inc.* (“*Daubert*
5 *II*”), 43 F.3d 1311, 1315 (9th Cir. 1995). Expert testimony is not excluded for relevancy where
6 “it speaks clearly and directly to an issue in dispute in the case, and . . . it will not mislead the
7 jury.” *Daubert II*, 43 F.3d at 1321 n.17.

8 On this issue, for a public nuisance claim, the City must establish conduct constituting a
9 nuisance. *See Miotke v. City of Spokane*, 101 Wn.2d 307, 309, 331 (1984), *abrogated on other*
10 *grounds by Blue Sky Advocs. v. State*, 107 Wn.2d 112 (1986). The City also bears the burden of
11 proving the unreasonableness of Monsanto’s conduct. *See Lakey v. Puget Sound Energy, Inc.*,
12 176 Wn.2d 909, 923 (2013) (citations omitted) (noting that the reasonableness of a defendant’s
13 conduct in a nuisance action is determined by “weighing the harm to the aggrieved party against
14 the social utility of the activity”). And, as the City acknowledges, “the key element in a public
15 nuisance action is whether the defendant’s conduct has substantially and unreasonably interfered
16 with public property or a public right, such as the public’s health.” (Pl.’s Reply at 4 (citing *Lewis*
17 *County v. Bonagofski*, 139 Wn. App. 1033, at *4 (Wash. Ct. App. June 28, 2007)).)

18 Here, Dr. Kytomaa’s remaining opinions opine that Old Monsanto’s conduct with regard
19 to PCB use was reasonable based on the need for fire safety fluid at the identified times, based
20 on the lack of PCB alternatives, because no non-flammable substitute for PCBs has been
21 developed, and given their use to this day. (*See Woerner Decl.*, Ex. A at 3-4.) Dr. Kytomaa’s
22 opinions as to the social utility of PCBs as fire safety fluids and the lack of PCB alternatives are
23 clearly relevant to addressing whether Defendants’ conduct constituted a nuisance and directly

1 bear on the reasonableness of Old Monsanto's production, marketing, and distribution of PCBs.⁷
2 *See Alaska Rent-A-Car, Inc. v. Avis Budget Grp., Inc.*, 709 F.3d 872, 883 (9th Cir. 2013) ("The
3 district court is not tasked with deciding whether the expert is right or wrong, just whether his
4 testimony has substance such that it would be helpful to a jury.") Moreover, Dr. Kytomaa's
5 opinions appear to touch on relevant issues with regard to Defendants' remaining affirmative
6 defenses concerning allocation of liability and Defendants' statutory compliance. (*See Order*
7 (*dk. # 581*) at 5.)

8 On reply, the City challenges whether the remainder of Dr. Kytomaa's opinions
9 constitute improper legal conclusions. (Pl.'s Reply at 1, 3-4.) This challenge was not previously
10 raised in the City's Motion. (*See Pl.'s Mot.*) The Court need not address arguments raised for the
11 first time in a reply brief. *See Turtle Island Restoration Network v. U.S. Dep't of Com.*, 672 F.3d
12 1160, 1166 n.8 (9th Cir. 2012) (finding "arguments raised for the first time in a reply brief are
13 waived"); *Zamani v. Carnes*, 491 F.3d 990, 997 (9th Cir. 2007) ("The district court need not
14 consider arguments raised for the first time in a reply brief.").

15 Finally, in the specified pages identified by the City in his report and supplemental report
16 (Woerner Decl., Ex. A at 110-150, Ex. C at 8-11), Dr. Kytomaa did not apply his fire-safety or
17 engineering expertise in providing narrative summations of various historical documents, maps,
18 figures, and deposition testimony. Pages 110 through 150 in Dr. Kytomaa's report, titled "Uses
19 of PCBs in the Seattle Area," appears to merely summarize various historical documents related
20 to the industrialization of the LDW and other PCB-handling sites and contributors in the area.

21
22 ⁷ Defendants particularly note that Dr. Kytomaa will opine the federal government deemed Old
23 Monsanto's manufacture and sale of PCBs necessary for the safe functioning of the nation's power grid,
which was central to their authorization and continued manufacture through January 1, 1979. (Defs.'
Resp. at 6-7 (citing Haase Decl., Ex. A (*dk. # 683-1*) at 38-49, 79-85).)

1 (See Woerner Decl., Ex. A at 110-150.) In his supplemental report, Dr. Kytomaa includes a
2 “Rebuttal of Dr. Markowitz and Dr. Rosner’s Report,” regarding the amount of Pydraul fluids
3 that Old Monsanto released into the LDW before a spill control system was installed at its
4 vanillin plant, which also appears to summarize deposition testimony from a Dr. Robert Kaley,
5 Monsanto’s designated corporate representative, and exhibits of various historical documents.
6 (See Woerner Decl., Ex. C at 8-11.)

7 In instances such as this, courts have excluded experts where the expert presented a
8 historical summation with no specialized expertise or experience in evaluating such documents.
9 See e.g., *Poosh v. Phillip Morris USA, Inc.*, 287 F.R.D. 543, 550 (N.D. Cal. 2012) (excluding
10 expert who summarized archival tobacco industry documents because she was “not qualified as
11 an expert in researching document archives”). Despite Defendants’ assertion that Dr. Kytomaa
12 may describe historical documents in his reports because the subject matter is within his area of
13 expertise, the Court fails to divine any opinion actually expressed by Dr. Kytomaa in the
14 identified portion where Dr. Kytomaa utilized his fire-safety and engineering expertise to opine
15 nor is the connection of this section to his opinions entirely clear.⁸ (See Woerner Decl., Ex. A at
16 110-150.) As to the identified portion of the supplemental report, Dr. Kytomaa’s analysis also
17 does not apply his stated expertise “beyond the common knowledge of the average layperson” to
18 summarize deposition testimony and historical exhibits. See *Moses v. Payne*, 555 F.3d 742, 756
19 (9th Cir. 2009). Therefore, pages 110-150, titled “Uses of PCBs in the Seattle Area,” of Dr.
20 Kytomaa’s report and the “Rebuttal of Dr. Markowitz and Dr. Rosner’s Report” in his
21 supplemental report are excluded.

22
23 ⁸ It is also unclear whether Dr. Kytomaa reviewed and compiled these historical documents himself. The City notes Dr. Kytomaa only billed a total of 25 hours for both his report and supplemental reports while his team billed over 1,100 hours. (Pl.’s Reply at 5-6 (citing Woerner Decl., Ex. B (Kytomaa Dep. (dkt. # 598-2)) at 23:16-24:10).)

1 Consequently, the City’s Motion is granted in part and denied in part. Dr. Kytomaa is
2 excluded from providing expert testimony as to Opinions 2-4 in this matter and the identified
3 summation of historical documents in both of his reports is excluded. Dr. Kytomaa will be
4 permitted to testify as to the remainder of his opinions in his reports.

5 **C. Dr. Markowitz**

6 Defendants argue that Dr. Markowitz should be excluded from providing expert
7 testimony generally because: (1) in rendering his opinions, Dr. Markowitz merely “regurgitates”
8 facts from historical records and reaches conclusory opinions; and (2) Dr. Markowitz rendered
9 conclusions about issues that he is not qualified to opine on, including toxicology, chemistry, the
10 technology of waste disposal, disposal practices, and Defendants’ knowledge, motive, intent or
11 state of mind. (Defs.’ Markowitz Mot. at 4-6.) On the latter challenge, Defendants specifically
12 contend that Dr. Markowitz is unqualified to opine about Old Monsanto’s alleged failure to
13 conduct long-term animal cancer studies before 1969, its warnings and disposal practices, Dr.
14 Paul Wright’s comments on 1974 effluent limitations, or an alleged discharge of Pydraul fluids
15 from Monsanto’s Seattle-area vanillin plant in the 1950s-1970s. (*Id.* at 6-10.)

16 The City responds that Dr. Markowitz’s opinions regarding the historical record are
17 based on his training and specialized knowledge as a historian and will assist the jury. (Pl.’s
18 Resp. at 3-5.) As a result, the City argues that Dr. Markowitz may opine on Monsanto’s
19 knowledge because it is within the scope of his expertise as a historian to draw inferences about
20 historical actors’ knowledge and beliefs based on the availability of information at a given
21 historical moment. (*Id.* at 5-6.) As to Defendants’ specific challenges, the City contends Dr.
22 Markowitz is qualified to testify regarding the identified historical documents from Defendants’
23 archive because his testimony is based on his evaluation of archive documents, his understanding

1 of their broader historical context, and his experience researching and writing as a public health
2 historian. (*Id.* at 6-11.)

3 An expert in one field cannot express an opinion relying on data that requires expertise in
4 another field. *See Fontana v. City of Fed. Way*, 2014 WL 202104, at *6 (W.D. Wash. Jan. 17,
5 2014). But despite Defendants’ challenge to Dr. Markowitz on such basis, the synthesizing of
6 voluminous historical texts is the type of expertise courts regularly acknowledge historians
7 possess. *See e.g., Marvel Characters, Inc. v. Kirby*, 726 F.3d 119, 135-36 (2d Cir. 2013) (“A
8 historian could, for example . . . helpfully synthesize dense or voluminous historical texts”);
9 *Burton v. Am. Cyanamid*, 2018 WL 3954858, at *4 (E.D. Wis. Aug. 16, 2018) (“[A] historian’s
10 synthesis of various source materials that enables the jury to perceive patterns and trends can
11 also be ‘helpful’ within the meaning of Rule 702. Courts have recognized the helpfulness of
12 expert historians testifying in these ways.”) (collecting cases). Expert historians have specialized
13 knowledge that includes “where to search for sources, formulating searches based on an
14 understanding of the history of the period in question, and evaluating the reliability of the
15 sources.” *Walden v. City of Chicago*, 755 F. Supp. 2d 942, 951 (N.D. Ill. 2010).

16 Here, Dr. Markowitz’s expertise is his ability to evaluate historical documents, which is
17 what he was tasked with in this case and qualified to do. *See VonRosenberg v. Lawrence*, 413 F.
18 Supp. 3d 437, 450 (D.S.C. 2019) (holding history expert’s “opinion, identifying, reviewing and
19 synthesizing voluminous historical texts” required specialized knowledge and was appropriate
20 for expert testimony). Simply put, Dr. Markowitz’s testimony involves more than parroting
21 documents. Dr. Markowitz was tasked with employing his expertise to examine several historical
22 documents concerning Defendants’ use of PCBs and synthesizing what was knowable about the
23 hazards of PCBs at relevant points of time into a coherent account. Dr. Markowitz’s testimony

1 does not significantly delve into the intricacies of the medical evidence synthesized regarding
2 toxicology, chemistry, the technology of waste disposal, or disposal practices, but instead
3 considers the historical availability of information about the health risks of PCBs.

4 As noted by the City, a similar challenge to Dr. Markowitz's ability to provide his
5 opinions was previously made and rejected in *Burton*. In that case, the court found Dr.
6 Markowitz's expert report contained "testimony that might be helpful to the jury by using
7 appropriate historical methodology to situate documents in the historical context that gave rise to
8 them or to situate documents within the historical record," and that his report "place[d] industry
9 publications, communications among lead industry officials, medical reports, and other
10 documents in historical context by synthesizing them into a narrative that cognizes background
11 social, scientific and political change." *Burton*, 2018 WL 3954858 at *5. This Court finds no
12 reason to depart from *Burton*, and likewise, finds Dr. Markowitz's opinions will assist the jury.
13 *See id.*; *see also New v. Borg-Warner Corp.*, 2015 WL 5166946, at *3 (W.D. Mo. Sept. 3, 2015)
14 (rejecting similar challenge and finding Dr. Markowitz qualified to testify as to historical
15 availability of information about the health risks of asbestos based on his knowledge, experience,
16 and education).

17 Defendants' challenge to Dr. Markowitz's ability to opine on Monsanto's knowledge,
18 motive, intent, and state of mind is similarly unavailing. On this issue, Defendants point to
19 instances in Dr. Markowitz's report where he purportedly opines on Monsanto's awareness and
20 knowledge, as well as what Monsanto understood and believed when it was producing PCBs.
21 (*See* Defs.' Markowitz Mot. at 5 (citing DeBord Markowitz Decl., Ex. A at 17 ("Monsanto also
22 misrepresented . . ."), ("When Monsanto finally did begin to provide information about
23 environmental concerns . . . , it was in part a result of a concern about legal liability."); *id.* at 23

1 (“Monsanto continued to misrepresent . . .”); *id.* at 32 (“Internal documents during the time
2 indicate that profits . . . played a significant role in Monsanto’s decision.”)).)

3 Though “[c]ourts routinely exclude as impermissible expert testimony as to intent,
4 motive, or state of mind,” *McGee v. Zurich Am. Ins. Co.*, 2021 WL 6070590, at *8 (D. Ariz. Dec.
5 22, 2021) (quoting *Siring v. Oregon State Bd. of Higher Educ.*, 927 F. Supp. 2d 1069, 1077 (D.
6 Or. 2013)), here, Dr. Markowitz is not directly testifying as to Monsanto’s intent, motive, or state
7 of mind. (*See* DeBord Markowitz Decl., Ex. A at 17, 23, 32.) Dr. Markowitz’s testimony instead
8 addresses what was knowable at relevant times in this case about the dangers of PCBs to the
9 environment and humans. *See New*, 2015 WL 5166946 at *5 (“While the jury may rely on [Dr.
10 Markowitz’s] testimony to draw *inferences* about what [defendant] knew or should have known,
11 that does not transform Dr[.] Markowitz’s . . . testimony into direct evidence about [defendant’s]
12 state of mind[.]” (emphasis in original)). “[I]t is certainly within the scope of a historian’s
13 expertise to draw inferences about historical actors’ knowledge and beliefs based on evidence
14 about the availability of information at a given historical moment in combination with contextual
15 knowledge of that moment’s general practices and mechanisms regarding information
16 dissemination.”⁹ *Burton*, 2018 WL 3954858 at *6.

17 To the extent Defendants disagree “with the facts or assumptions underpinning [Dr.
18 Markowitz’s] inferences,” Defendants may make such challenges in the course of
19 cross-examination. *Burton*, 2018 WL 3954858 at *6; *see also United States v. Sanft*, 2021 WL
20 5278766, at *2 (W.D. Wash. Nov. 13, 2021) (“Defendants may disagree with [an expert’s]
21

22 ⁹ Though Defendants represent that prior courts have prevented Dr. Markowitz (and his co-author Dr.
23 Rosner) from opining on Monsanto’s state of mind (Defs.’ Reply at 3 (citing Haase Decl., Ex. H (dkt.
718-1) at 151:7-17)), the trial court in that case allowed them to testify as to “knowledge, [or] what was
known or knowable to your company as a matter of what was being published in trade journals” (*id.* at
151:3-6).

1 opinions and challenge the accuracy of the evidence supporting his conclusions, [but] their
2 challenge goes to the weight of his testimony, not its admissibility.”). The proper means of attack
3 for Dr. Markowitz’s testimony therefore is through “[v]igorous cross-examination, presentation
4 of contrary evidence, and careful instruction on the burden of proof,” and not exclusion. *Daubert*
5 *I*, 509 U.S. at 596; *see also Bluetooth SIG, Inc. v. FCA US LLC*, 468 F. Supp. 3d 1342, 1349
6 (W.D. Wash. 2020) (“[T]he factual basis of an expert opinion goes to the credibility of the
7 testimony, not the admissibility, and it is up to the opposing party to examine the factual basis
8 for the opinion in cross-examination.” (internal quotations and citation omitted)).

9 Last, for the same reasons this Court concludes above that Dr. Markowitz is qualified to
10 provide expert testimony given his specialized knowledge as a public health historian, the Court
11 similarly finds that Dr. Markowitz is qualified to opine on: (1) Monsanto’s failure to conduct
12 long-term animal cancer studies; (2) Monsanto’s warnings recommendations; (3) Monsanto
13 employee Dr. Paul Wright’s comments on 1974 effluent standards; and (4) Monsanto’s alleged
14 knowledge of discharges of PCBs from its vanillin plant into the LDW. Dr. Markowitz’s
15 opinions as to these specifically identified topics is rooted in his evaluation of Monsanto’s
16 archival documents and broader industry documents, their historical context, and his experience
17 as a public health historian as to Monsanto’s knowledge in these areas. (*See DeBord Markowitz*
18 *Decl., Ex. A at 7-9, 13-14, 18, 25; DeBord Markowitz Decl., Ex. B at 42.*) As to any other
19 related challenges to the foundation of these specifically identified opinions, as noted above,
20 Defendants will have the opportunity to address them during cross-examination. *See Bluetooth*
21 *SIG, Inc.*, 468 F. Supp. 3d at 1349; *Sanft*, 2021 WL 5278766 at *2.

22 The Court however caveats that Dr. Markowitz is not qualified to offer that “Monsanto
23 could have built an incinerator capable of destroying solids, but it chose not to because of the

1 cost.” (DeBord Markowitz Decl., Ex. A at 7.) Dr. Markowitz fails to provide any historical
2 foundation for this opinion nor possesses sufficient specialized knowledge to opine on disposal
3 recommendations or practices untethered to the historical record. *See Cooper v. Brown*, 510 F.3d
4 870, 942 (9th Cir. 2007) (“Rule 702 demands that expert testimony relate to scientific, technical
5 or other specialized knowledge, which does not include unsubstantiated speculation and
6 subjective beliefs.”) (citations omitted).

7 In sum, given that Defendants’ conduct at issue began in 1935 and the historical record
8 maintained in Monsanto’s archive regarding that conduct spans several decades, Dr.
9 Markowitz’s testimony employing such records will clearly aid and assist the jury. Therefore,
10 Defendants’ Markowitz Motion is granted as to Dr. Markowitz’s specific disposal
11 recommendations but otherwise denied as to the remainder of Defendants’ challenges.

12 **D. James S. Cooper**

13 Finally, Defendants argue that Mr. Cooper is unqualified to render any opinions as to
14 historical alternatives to PCB dielectric fluid based on his lack of knowledge with regard to
15 dielectric fluid, historical alternatives to PCB dielectric fluid, and his lack of experience
16 comparing dielectric fluids. (Defs.’ Cooper Mot. at 4-5.) Similarly, Defendants challenge Mr.
17 Cooper’s qualifications to opine on PCB transformer explosions, other PCB fire-related events,
18 or the formation of polychlorinated dibenzodioxins (“PCDDs”) or polychlorinated dibenzofurans
19 (“PCDFs”) that allegedly result from PCB fire-related events. (*Id.* at 5-6.) Lastly, Defendants
20 argue that Mr. Cooper’s opinions should be excluded as speculative because they invite the jury
21 to render judgment based on hypothetical scenarios that never occurred and as unreliable for lack
22 of foundation and unconsidered countervailing facts. (*Id.* at 6-10.)
23

1 The City responds that Mr. Cooper’s substantial experience working in the electric-utility
2 industry with both PCB and non-PCB equipment, and the facts detailed in his report, sufficiently
3 qualifies him to opine on alternatives to PCBs in electrical equipment. (Pl.’s Cooper Resp. at
4 5-6.) The City further responds that his opinions do not require any fire-safety expertise, or
5 PCDDs and PCDFs expertise, because his opinions merely acknowledge risks from PCB
6 fire-related events based on a National Institute for Occupational Safety and Health (“NIOSH”)
7 bulletin on PCB fires in electrical equipment and internal Monsanto documents. (*Id.* at 7.)
8 Finally, the City notes that Ninth Circuit law is clear that Mr. Cooper may address hypotheticals
9 posed to him, and that Defendants’ countervailing considerations and disagreement about the
10 foundation of his report should be reserved for cross-examination. (*Id.* at 8-10.)

11 The Court must first determine whether Mr. Cooper is qualified as an expert by
12 “knowledge, skill, experience, training or education.” Fed. R. Evid. 702. An expert is considered
13 qualified to testify if the expert has “sufficient specialized knowledge to assist the jurors in
14 deciding the particular issues in the case.” *Kumho Tire*, 526 U.S. at 156. Because Rule 702
15 “contemplates a *broad conception* of expert qualifications,” only a “*minimal foundation* of
16 knowledge, skill, and experience” is required. *Hangarter v. Provident Life & Accident Ins. Co.*,
17 373 F.3d 998, 1015-16 (9th Cir. 2004) (internal quotations and citation omitted, emphasis in
18 original).

19 Here, Mr. Cooper is sufficiently qualified by his relevant experience to opine on the
20 identified subjects in this matter. As previously outlined above, Mr. Cooper has nearly five
21 decades worth of experience working with PCB and non-PCB equipment with electrical utilities
22 and companies. (DeBord Cooper Decl., Ex. A at 2-3.) In fact, as noted by the City, Mr. Cooper
23 was an active participant in the electrical industry’s transition from PCB-equipment to non-PCB

1 alternatives while at TVA. (*See* Pl.’s Cooper Resp. at 6.) Defendants fail to convince this Court
2 why specialized knowledge in dielectric fluid is necessary to support Mr. Cooper’s opinion that
3 the electrical utility industry would have selected alternatives had it been more aware of the risks
4 of PCB use given his industry experience. *See Cypress Ins. Co. v. SK Hynix Am., Inc.*, 2019 WL
5 634684, *3 (W.D. Wash. Feb. 14, 2019) (“[T]he fact that [his] opinions are based only on his
6 knowledge or experience is not enough to disqualify him as an expert.”). A “lack of
7 particularized expertise goes to the weight of [his] testimony, not its admissibility.” *United States*
8 *v. Garcia*, 7 F.3d 885, 890 (9th Cir. 1993) (citing *United States v. Little*, 753 F.2d 1420, 1445
9 (9th Cir. 1984))

10 Similarly, Mr. Cooper’s reference to a NIOSH bulletin and internal Monsanto documents
11 regarding the risks of fires and explosions occurring in PCB equipment, and any resulting
12 hazardous byproducts such as PCDDs and PCDFs that may form as a result, does not disqualify
13 his opinions based on a lack of particularized experience. Mr. Cooper’s citation to risks
14 identified by others regarding the use of PCB equipment is not inadmissible because he lacks
15 specific expertise in fire-safety, PCDDs or PCDFs. *See Kennedy v. Collagen Corp.*, 161 F.3d
16 1226, 1230-31 (9th Cir. 1998) (citation omitted) (“Disputes as to the strength of [an expert’s]
17 credentials, faults in his use of [a particular] methodology, or lack of textual authority for his
18 opinion, go to the weight, not the admissibility, of [his] testimony”).

19 Finally, Ninth Circuit case law is clear that an expert may “address a hypothetical world
20 that never existed.” *Elosu v. Middlefork Ranch Inc.*, 26 F.4th 1017, 1025 (9th Cir. 2022) (quoting
21 *Alaska Rent-A-Car, Inc.*, 738 F.3d at 969). Mr. Cooper may therefore appropriately consider
22 hypotheticals where the risks of PCBs were known earlier in time such that a market for PCB
23 alternatives would have coalesced sooner. As to the remainder of Defendants’ challenges that

1 certain of Mr. Cooper's opinions lack support or relevant consideration of countervailing
2 interests, these matters are appropriate considerations for cross-examination, and not
3 admissibility. *See Elosu*, 26 F.4th at 1025 (citing *Alaska Rent-A-Car*, 738 F.3d at 969-70).
4 Accordingly, Defendants' Cooper Motion is denied.

5 IV. CONCLUSION

6 For the foregoing reasons, (1) the City's Motion (dkt. # 597) is GRANTED in part and
7 DENIED in part; (2) Defendants' Markowitz Motion (dkt. # 638) is GRANTED in part and
8 DENIED in part; and (3) Defendants' Cooper Motion (dkt. # 624) is DENIED. Specifically, the
9 City's Motion is granted as to excluding Dr. Kytomaa's Opinions 2-4, and the identified
10 summation of historical documents in his reports, but otherwise denied. Defendants' Markowitz
11 Motion is granted in part as to Dr. Markowitz's disposal recommendations but otherwise denied.

12 Dated this 15th day of June, 2023.



14 MICHELLE L. PETERSON
15 United States Magistrate Judge
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